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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,024

04/14/2004

Billy W. McDaniel

2003-IP-012882U1

5994

7590

12/29/2006

Robert A. Kent  
Halliburton Energy Services  
2600 South 2nd Street  
Duncan, OK 73536-0440

EXAMINER

FULLER, ROBERT EDWARD

ART UNIT

PAPER NUMBER

3672

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/29/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,024	<b>Applicant(s)</b> MCDANIEL ET AL.	
	<b>Examiner</b> Robert E. Fuller	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3,8-11,13-31,35-41 and 43-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,8-11,13-31,35-41 and 43-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment, dated September 29, 2006, has overcome the prior art rejections put forth in the previous office action, and has overcome some of the objections to the abstract and claims. However, some of the objections still stand. New prior art rejections have been made as well. Because of the new rejections, this office action has not been made final.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the use of the phrase "are disclosed herein" is improper. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

4. Claim 3 is objected to because of the following informalities: The word "or" in line 3 must be changed to --and--. Appropriate correction is required.

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5. Claim 11 is objected to because of the following informalities: The use of the phrase "step (a)" is improper. Examiner suggests that "step (a)" be changed to --the step of forming at least a portion of a well bore--. Appropriate correction is required.
6. Claims 14, 27, and 44 are objected to because of the following informalities: These claims are still improperly constructed claims because of the recitation of "and mixtures thereof" or "and combinations thereof." These recitations should be deleted. Appropriate correction is required.
7. Claim 18 is objected to because of the following informalities: Claim 18 positively recites limitations which were already recited in claim 1. Appropriate correction is required.
8. Claim 31 is objected to because of the following informalities: In line 1, "a section" should be changed to --multiple sections-- in order to be consistent with the rest of claim 31 and its dependent claims. Appropriate correction is required.
9. Claim 41 is objected to because of the following informalities: The use of the phrase "step (b)" is improper. Examiner suggests that "step (b)" be changed to --the step of drilling at least a portion of the well bore--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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11. Claims 1-3, 8-11 14, 16-25, 31, 35-41, 44-54, and 57-65 are rejected under 35 U.S.C. 102(b) as being anticipated by Whiteley (US 6,006,838).

With regard to claims 1-3, 9, 11, 14, 16-18, 21-25, 31, 35-37, 39, 41, 44-47, 50-54, 57, and 61, Whiteley discloses a method of "selectively stimulating multiple production zones or intervals within a subterranean oil or gas well in a single trip" (column 2, lines 47-48). Whiteley further teaches that his apparatus can be interconnected with a drill string (column 3, lines 14-18) in a rotary drilling operation. The stimulating step comprises jetting a stimulation fluid through ports, or nozzles (24) at a pressure sufficient to create a cavity in the section of the subterranean formation (see column 4, lines 44-47 and figure 3). Whiteley also teaches shutting the annulus between the drill string and the wellbore wall using a packer (3). The ports (24) are opened by a sliding sleeve (22).

With regard to claims 8, 10, 19, 20, 38, 40, 48, 49, 58-60, and 62-65, a "second fluid" could comprise drilling fluid, which could contain many different types of additives to enhance the stimulation of the formation and clean the formation. Furthermore, the drilling fluid could be pumped at a pressure sufficient to enlarge the cavity formed by the initial fluid injection.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 13, 15, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiteley.

Whiteley fails to disclose the stimulation fluid being an unweighted drilling fluid, nor does Whiteley disclose the stimulation fluid being a relative permeability modifier.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used, in conjunction with Whiteley's device, a stimulating fluid with a chemistry similar to that of drilling fluid, said fluid being an unweighted drilling fluid or a relative permeability modifier, as the examiner hereby takes official notice that it was notoriously conventional in the art to have used drilling fluids with a multitude of additives to both stimulate formations as well as prevent drilling fluid loss into formations.

14. Claims 26, 27, 30, 55, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiteley in view of Soliman (US 5,111,881).

Whiteley fails to disclose sealing the treated formation using a degradable sealant, a fluid, or a solid.

Soliman teaches a method of sealing a treated subterranean formation. Soliman teaches the use degradable sealants such as polysaccharides (column 6, lines 43-63).

It would have been considered obvious, at the time the invention was made, to have sealed the formation treated by the device of Whiteley with the plugging agents disclosed by Soliman, in order to have provided temporary protection for the treated formations from the pressurized fluids introduced into the well bore as the drilling operations continued.

15. Claims 26-29, 55, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiteley in view of Guinn (US RE27,459).

Whiteley fails to disclose sealing the treated formation using a degradable sealant, a fluid, or a solid.

Guinn teaches a method of sealing a treated subterranean formation. Guinn further teaches the use of fluids such as cement (column 4, lines 50-52), and solids such as salt and paraffin beads (column 4, lines 38-39).

It would have been considered obvious, at the time the invention was made, to have sealed the formation treated by the device of Whiteley with the plugging agents disclosed by Guinn, in order to have protected the formations which had been treated from the pressurized fluids introduced into the well bore as the drilling operations continued.

### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert E. Fuller whose telephone number is 571-272-


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0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM. The examiner is normally out of the office every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/21/2006  
REF

  
DAVID BAGNELL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600